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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,414	05/03/2001	Hijin Sato	206737US2	5474
22850	7590	05/21/2004		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER ORGAD, EDAN	
			ART UNIT 2684	PAPER NUMBER 10

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/847,414

Applicant(s)

SATO ET AL.

Examiner

Edan Orgad

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 12, 13, 16-18, 21, 22, 26-28, 31 & 32 is/are rejected.
- 7) ☒ Claim(s) 5, 9-11, 14, 15, 20, 24, 25, 29 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/3/01 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6, 7 & 9.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 32 recites the limitation "said control unit" in pg. 41, line 21. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, 7, 12, 13, 16-18, 21, 22, 26-28, 31 & 32 rejected under 35 U.S.C. 102(b) as being anticipated by Noneman (US 5,887,252).

Regarding claims 1 and 16, Noneman teaches a method of providing a multicast service from an information delivery apparatus to wireless terminals (see abstract), comprising the steps of: transmitting, from the information delivery apparatus, a plurality of sets of multicast information, said sets being identical to each other as to contents thereof but differing in transmission conditions (col. 2, line 66- col. 3, line 2); and receiving, at any given one of the

Art Unit: 2684

wireless terminals, one of the sets of multicast information being transmitted under one of the differing transmission conditions (col. 3, lines 18-20 & lines 42-45).

Regarding claims 2 and 17, Noneman teaches the differing transmission conditions include differing transmission rates at which the multicast information is transmitted (col. 1, lines 55-63).

Regarding claims 3 and 18, Noneman teaches communication between the information delivery apparatus and the wireless terminal is based on code division multiple access, and the differing transmission rates differ in a number of spreading codes used in the transmission of multicast information (col. 1, lines 55-63, col. 3, lines 42-45 & col. 5, lines 42-49).

Regarding claims 6 and 21, Noneman teaches differing transmission rates differ in a transmission bit rate of the multicast information (col. 5, line 54- col. 6, line 8).

Regarding claims 7 and 22, Noneman teaches communication between the information delivery apparatus and the wireless terminal is based on code division multiple access, and the differing transmission conditions include differing processing gains of spreading the multicast information (col. 1, lines 55-63, col. 3, lines 42-45 & col. 5, lines 42-49).

Regarding claims 12 and 27, Noneman teaches of decreasing a size of the multicast information to be transmitted as the differing transmission rates decrease (col. 5, line 54- col. 6, line 8).

Regarding claims 13 and 28, Noneman teaches decreasing adjusts a compression rate of the multicast information to be transmitted so as to decrease the size of the multicast information (col. 4, lines 29-41).

Art Unit: 2684

Regarding claim 26, Noneman teaches said information delivery control unit notifies the wireless terminals of the differing transmission conditions used to transmit the plurality of sets of multicast information (col. 4, lines 50-67).

Regarding claim 31, Noneman teaches a wireless terminal for receiving multicast information from an information delivery apparatus through wireless routes, comprising a control unit which measures reception quality of signals received from the information delivery apparatus (col. 2, line 66- col. 3, line 2), and receives one of sets of the multicast information sent from the information delivery apparatus by using transmission conditions selected based on the measured reception quality, wherein the sets of multicast information are identical to each other but differ in transmission conditions (col. 3, lines 18-20 & lines 42-45).

Regarding claim 32, Noneman teaches said control unit notifies the information delivery apparatus of the measured reception quality, and is notified by the information delivery apparatus of the transmission conditions that are to be used for receiving the one of the sets of the multicast information sent from the information delivery apparatus (col. 2, line 66- col. 3, line 2 & (col. 3, lines 18-20 & lines 42-45).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 8, 19 & 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noneman (US 5,887,252) in view of Langlet et al (US # 5,930,248).

Regarding claims 4 and 23, Noneman teaches communication between the information delivery apparatus and the wireless terminal is based on code division multiple access (see abstract), but fails to specifically disclose time division multiple access, and the differing transmission rates differ in a number of timeslots used in the transmission of multicast information. However, in the same field of invention, Langlet teaches time division multiple access and the differing transmission rates differ in a number of timeslots used in the transmission of multicast information (col. 3, lines 2-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Langlet's time division multiple access, and the differing transmission rates differ in a number of timeslots used in the transmission of multicast information with Noneman's multicast system in order to improve the downlink coverage only when necessary and avoid waste of communication resources when multicasting is not needed.

Regarding claims 8 and 19, Langlet teaches the differing transmission conditions include differing positions of timeslots used in the transmission of multicast information (col. 6, lines 47-54).

Allowable Subject Matter

Claims 5, 9-11, 14, 15, 20, 24, 25, 29 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 5 and 20, the prior art of record fails to specifically disclose the differing transmission rates differ in a number of modulation levels used for modulating the multicast information.

Regarding claim 9, the prior art of record fails to specifically disclose measuring the reception quality at each of the wireless terminals, and notifying the information delivery apparatus of measured results of the reception quality; and determining, at the information delivery apparatus, the differing transmission conditions based on the measured results of the reception quality, the differing transmission conditions being used to transmit the plurality of sets of multicast information.

Regarding claims 11 and 24, the prior art fails to specifically disclose transmitting, from the information delivery apparatus to the wireless terminals, the differing transmission conditions used to transmit the plurality of sets of multicast information; and measuring reception quality at each of the wireless terminals, and selecting a transmission condition from the reported differing transmission conditions based on the measured reception quality, the selected transmission condition being used for receiving one of the sets of multicast information.

Regarding claims 14 and 29, the prior art fails to specifically disclose storing the multicast information in a buffer at the information delivery apparatus as the multicast

Art Unit: 2684

information is received from a network; and assigning channels to the respective sets of the multicast information as the respective sets are read from the buffer at rates of reading corresponding to the differing transmission rates.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,671,286 Method and apparatus for indicating variable data processing in telecommunication connections.

US 6,542,755 Multicast communication method in a CDMA mobile communication system.

US 6,434,396 Method in a cellular radio communications system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edan Orgad whose telephone number is 703-305-4223. The examiner can normally be reached on 8:00AM to 5:30PM with every other Friday off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 703-305-4223. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2684

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edan Orgad



May 11, 2004


NAY MAUNG
SUPERVISORY PATENT EXAMINER